

Abstract of the Disclosure

Provided herein are novel phosphors useful in the manufacture of white light emitting diodes. The phosphors provided by the invention are described by the formulae:



in which x, and y are each independently any value between about 0 and about 1, subject to the proviso that the sum of x and y is equal to any number in the range of between about 0.75 and about 1.25; M is at least one of Be, Mg, Ca, Sr, Ba, Zn, excepting Zn alone; and wherein the activator(s) B comprises one or more elements selected from the group consisting of: Eu, Ce, Cu, Ag, Al, Tb, Sb, Bi, K, Na, Cl, F, Br, I, Mg, Pr, and Mn, including mixtures comprising any two, any three, any four, any five, any six, any seven, or more of these elements in any proportion, and wherein the elements in these mixtures may each independently be present in any amount between 0.0001 % and about 10 % in mole percent based on the total molar weight of said composition.

Standard techniques used in conventional phosphor deposition for the manufacture of light emitting diodes which comprise phosphors according to the invention may be employed to produce LED's having a white light output.